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Professor Steier

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Los Angeles, CA 90089-0483

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During the first two years of this period ten research projects were supported and during the final year nine units were supported under this program. The units are in the areas of Solid State Electronics, Optical and Infrared Electronics, and Information Electronics. The three year period has been a very productive one from the scientific results achieved and the transfer of the results to industry and government laboratories. The results are documented in the 63 scientific publications and one book chapter that have resulted from this research. Perhaps the best mode of technology transfer is through students who graduate and carry the technology with them to other laboratories and industry. Fourteen students who were supported by JSEP received Ph.D. degrees during this period.

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JOINT SERVICES ELECTRONICS PROGRAM

RESEARCH IN ELECTRONICS

CONTRACT NO. F49620-94-C-0022

FINAL REPORT

4/1/94 through 3/31/97

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UNIVERSITY
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Joint Services Electronics Program

OVERVIEW

This final report on the Joint Services Electronics Program, Contract F49620-94-C-002, covers the three year period 4/1/94 through 3/31/97.

During the first two years of this period ten research projects were supported and during the final year nine units were supported under this program. The units are in the areas of Solid State Electronics, Optical and Infrared Electronics, and Information Electronics. The three year period has been a very productive one from the scientific results achieved and the transfer of the results to industry and government laboratories. The results are documented in the 63 scientific publications and one book chapter that have resulted from this research. Perhaps the best mode of technology transfer is through students who graduate and carry the technology with them to other laboratories and industry. Fourteen students who were supported by JSEP received Ph.D. degrees during this period.

Solid State Electronics

SS2-1 P. D. Dapkus
Low Temperature H-Free Growth of AlGaInN Materials by Vacuum Atomic Layer Epitaxy

SS2-2 A. Madhukar
Innovative Approaches For Processing of Advanced Semiconductor Structures and Integration of Diffractive Optical Elements for Packaging

SS2-3 R. Nottenburg
High Speed Interface Electronics for Optoelectronics

Optical and Infrared Electronics

OE2-1 J. Feinberg
Waveguides and Frequency Doubling in Ferroelectric Crystals

OE2-2 E. Garmire
Understanding the Dynamics of Charge Transport in Quantum Well Structures for Improved Device Performance

OE2-3 W. Steier
Integrated Organic Semiconductor Opto-Electronics

OE2-4 A. Levi
Influence of Reduced Size on the Performance of Semiconductor Micro-Lasers

OE2-5 A. Sawchuk
Integration of Diffractive Optics with Smart Pixels for Optical Communications, Networking and Computing

Information Electronics

IE2-1 R. Scholtz
Wideband Time-Hopping for Multiple-Access Communications

IE2-2 A. Polydoros
Inference and Sorting of Wideband Signals

DEGREES AWARDED

Aydin, Levent	PhD	1996
Panagiotou, Prokopias	PhD	1997
Kalburge, Amol	PhD	1997
Konkor, Atul	PhD	1997
Kunzia, Charles	PhD	1994
Lin, Jeng-Feng	PhD	1996
De La Cruz, San Ching	PhD	1997
Noraev, Dmitry	PhD	1996
Kalluri, Shrinath	PhD	1997
Ranon, Peter	PhD	1993
Kanjamala, Ashok	PhD	1997
Thiyagarajan, S.	PhD	1997
Win, Moe	PhD	1997
Lao, Lihui	MS	1996

JOINT SERVICES ELECTRONICS PROGRAM

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